

Amendment Under 37 C.F.R. §1.111
Application No. 10/523,816
Attorney Docket No. 042635

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions of claims in the application.

1. (Currently amended): A composite particle ~~comprised of~~ made from a base particle (A) and a carbodiimide resin (B), wherein
said base particle (A) has having a functional group reactable with a carbodiimide group and a said carbodiimide resin (B), ~~characterized in that~~ contains a carbodiimide group and
said base particle (A) and said carbodiimide resin (B) are bonded together by the functional group of the base particle (A) and the carbodiimide group of the carbodiimide resin (B) ~~bond each other, and to form~~ a shell layer ~~is formed~~ which is comprised of the carbodiimide resin (B) having average thickness diameter (L), represented by the following numerical equation [1], in the range of 0.01 to 20 μ m:

$$L = (L_2 - L_1) / 2 \quad [1]$$

[[()]] wherein L_1 represents average particle diameter of the base particle and L_2 represents average particle diameter of the composite particle[()]].

2. (Currently amended): The composite particle according to Claim 1, characterized in that morphology of the ~~above-described~~ base particle (A) is true spherical or near spherical.

3. (Currently amended): The composite particle according to Claim 1, characterized in that at least one carbodiimide group in a molecular chain of the ~~above-described~~ carbodiimide resin (B) bonds with the functional group of the base particle (A) to form [[a]] the shell layer.

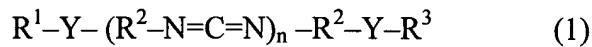
4. (Currently amended): The composite particle according to Claim 1, characterized in

that the bond of the functional group of the ~~above-described~~ base particle (A) and the carbodiimide group of the carbodiimide resin (B) is at least one kind selected from a carbamoyl amide bond, an isourea bond, a guanidine bond or a thiourea bond.

5. (Currently amended): The composite particle according to Claim 1, characterized in that the functional group of the ~~above-described~~ base particle (A) is at least one active hydrogen group selected from a hydroxyl group, a carboxyl group, an amino group or a thiol group.

6. (Currently amended): The composite particle according to Claim 1, characterized in that the ~~above-described~~ base particle (A) is a thermoplastic resin particle.

7. (Currently amended): The composite particle according to Claim 1, characterized in that the ~~above-described~~ carbodiimide resin (B) is a carbodiimide resin represented by the following chemical formula (1):



[[()]]wherein R¹ and R³ represent hydrogen or an organic residue having a carbon number of 1 to 40, which is obtained from a compound having a functional group reactable with an isocyanate group left by the functional group, and may be the same or different, and R² represents an organic residue which is a diisocyanate left by the isocyanate group, wherein said diisocyanate may be a different type[[.]]; Y represents a bond formed by the ~~above-described~~ isocyanate group and the ~~above-described~~ functional group reactable with the ~~above-described~~ isocyanate group, and “n” is average degree of polymerization, being in the range of 1 to 100[[. And]]; and R¹-Y and Y-R³ may be an isocyanate group itself on the way to carbodiimidation.[]]]

Amendment Under 37 C.F.R. §1.111
Application No. 10/523,816
Attorney Docket No. 042635

8. (Currently amended): The composite particle according to Claim 7, characterized in that the ~~above-described~~ carbodiimide resin (B) has at least one kind of a hydrophilic segment, and is water-soluble.

9. (Currently amended): A method for producing the composite particle according to ~~anyone~~ any one of Claims 1 to 8, ~~characterized by~~ comprising the

a first step wherein a base particle (A) having a functional group reactable with a carbodiimide group and a carbodiimide resin (B) are mixed or immersed in the presence of at least one kind of a solvent selected from an organic solvent or water which is a non-solvent of the ~~former~~ base particle (A) but a solvent of the ~~latter~~ carbodiimide resin (B), to sufficient degree that the ~~latter~~ carbodiimide resin (B) is impregnated at a surface layer part of the ~~former~~ base particle (A), and

consecutively ~~the~~ a second step wherein at the surface of the base particle (A), a shell layer which is comprised of the carbodiimide resin (B) is formed so as to cover the base particle (A), by a reaction of a functional group of the ~~former~~ base particle (A) with a carbodiimide group of the ~~latter~~ carbodiimide resin (B).

10. (Currently amended): The method for producing the composite particle according to Claim 9, ~~characterized in that the above-described~~ further comprising a preliminary step of forming said base particle (A) ~~is a particle preliminarily obtained by suspension polymerization, emulsion polymerization, dispersion polymerization or seed polymerization.~~

Amendment Under 37 C.F.R. §1.111

Application No. 10/523,816

Attorney Docket No. 042635

11. (Currently amended): The method for producing the composite particle according to Claim 9, ~~characterized~~ wherein in the first step that the base particle (A) is immersed in a solution which is obtained by dissolving the carbodiimide resin (B) in at least one kind of a solvent selected from an organic solvent or water.